

BIASING DEVICE FOR IMPLANTABLE HEARING DEVICES

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ABSTRACT OF THE DISCLOSURE

An implantable hearing device is coupled to a tympanic membrane and an oval window of a human subject's ear. The implantable hearing device includes an amplifier, a first transducer electrically coupled to the amplifier, and a second transducer also electrically coupled to the amplifier. A first compliant connecting member elastically couples the tympanic membrane to the first transducer. A second compliant connecting member elastically couples the second transducer to the oval window. Ambient sounds are transmitted from the tympanic membrane to the first transducer by the first compliant connecting member, thus generating an audio signal. The audio signal is amplified by the amplifier, which drives the second transducer. The second compliant connecting member transmits the amplified sounds to the oval window, possibly via one or more ossicles or prostheses. The hearing of the human subject is thus improved.

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